

ABSTRACT

[0022] A “torque-on-demand” (“TOD”) four wheel drive system comprising a slipper clutch or roller clutch positioned between a first rotatable component and a second rotatable component. The clutch comprises a first tubular component having a first axial slot and a second tubular component having a second axial slot. A control pin extends through and is axially moveable within the first and second slots. One of the first or second slots has a constant circumferential width W and the other of the first and second slots has at least first and second portions along its axial length with the first and second portions having different circumferential widths. Axial movement of the control pin along the slots changes the clutch between 2WD and 4WD/TOD modes.